Xonar HDAV1.3 DVD/Blu-ray Disc Playback User Guide

Version: V.0.90
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This document is to describe the critical software setup steps about TotalMedia Theatre software player and Xonar driver to properly playback Blu-ray/DVD movie disc on XP and Vista. It's highly recommended to read the information before you start playing Blu-ray/DVD disc with Xonar HDAV1.3 card.

Background Information

TotalMedia Theatre (TMT) player requires the following system equipments for DVD and Blu-ray disc playback:

For TotalMedia Theatre with DVD playback:

1. Windows XP 32 SP2/Vista 32/64
2. Intel Pentium 4, Pentium M, or equivalent; AMD Athlon 64 or equivalent
3. 24 MB free hard disk space
4. 128 MB RAM (256 MB recommended)
5. DVD-ROM drive
6. 16-bit color display at 800x600
7. DirectX 9.0c

For TotalMedia Theatre with Blu-ray playback:

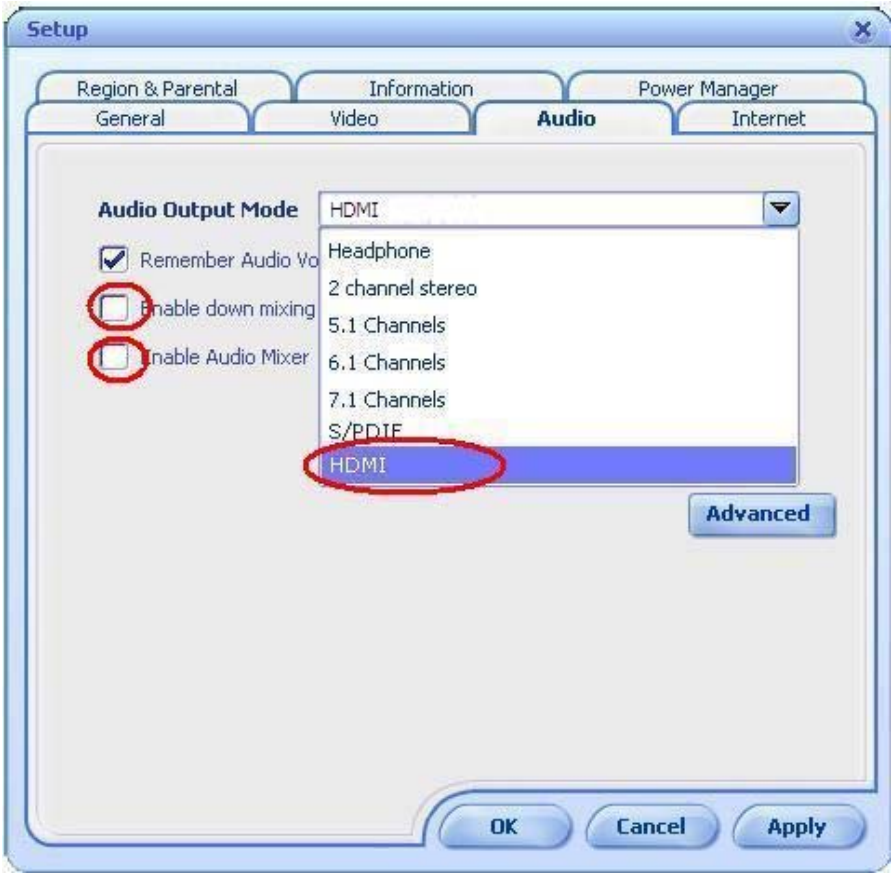
1. Windows XP 32 SP2/Vista 32/64
2. Intel Pentium EE 3.2 GHz, Intel Core Duo, or equivalent; AMD Athlon 64 or equivalent
3. 120 MB free hard disk space
4. 512 MB RAM (1 GB recommended)
5. Blu-ray or HD DVD drive
6. NVIDIA GeForce 8400 and above, or AMD(ATI) HD2400 and above.

Notes: AMD(ATI) graphic cards are only supported on Windows Vista 32 at this time. Please contact AMD for updated drivers.

7. 256 MB graphics card or above

8. HDCP compliant display for digital output (HDMI connection); TV or VGA monitor for analog output

TotalMedia Theatre (TMT) player shows the following Audio Output Mode options in its Setup window and each contains different output functionality:



-In Headphone~7.1 Channels modes, TMT will decode the compressed audio in Blu-ray/DVD disc and output LPCM data

-In S/PDIF mode, TMT will pass through traditional Dolby Digital or DTS 5.1 bit-stream in principle (except LPCM in Dolby TrueHD soundtrack)

-In HDMI mode, TMT will pass through HBR audio bit-stream from Blu-ray disc in principle or Dolby Digital/DTS 5.1 from DVD

Windows XP 32

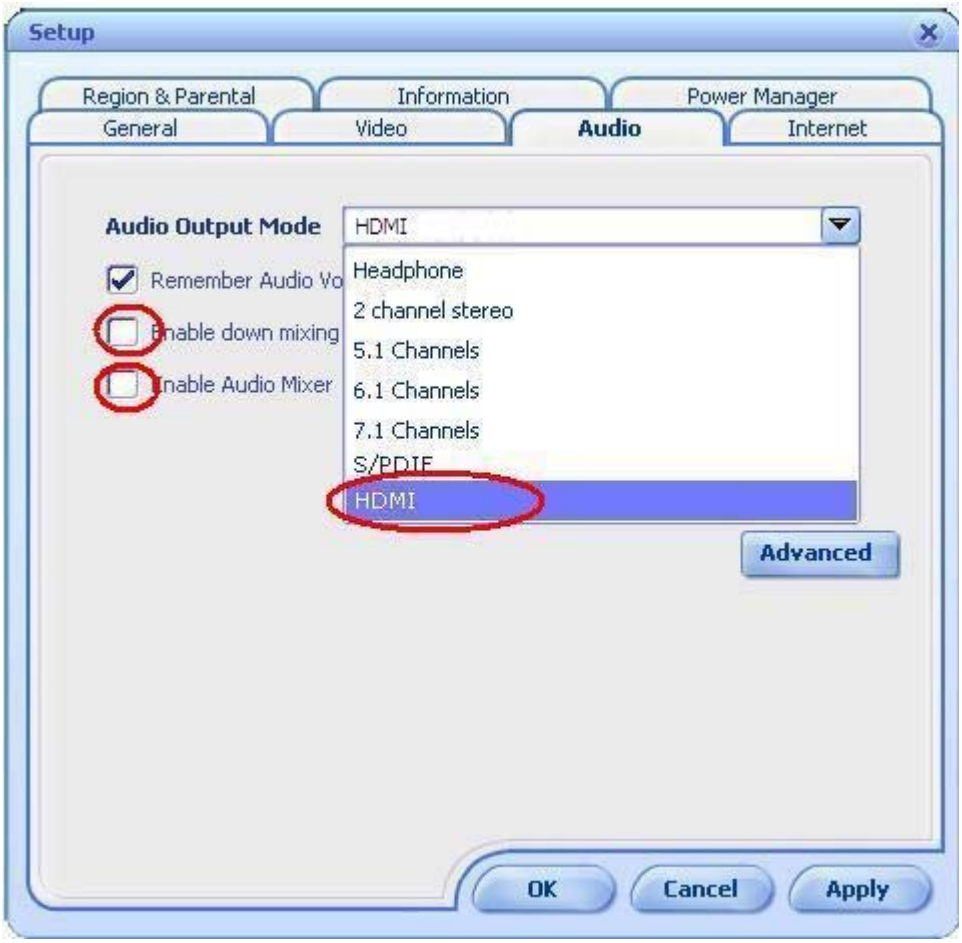
(Current TotalMedia Theatre player only supports Windows XP x32. x64 XP version will be supported in the near future.)

Scenario 1: DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby Digital Plus bit-stream pass-through to AV receiver by HDMI 1.3 connection (for Blu-ray Disc)

1. Select HDMI mode tab in Xonar HDAV Center audio page

2. Open TotalMedia Theatre player ➔Setup➔Audio tag
3. Select "**HDMI**" in Audio Output Mode (TMT will output HBR audio bit-stream)
4. Uncheck "Enable down mixing (192KHz)" and "Enable audio mixer" items
5. Press "Apply" first, then press OK. Then start playback.

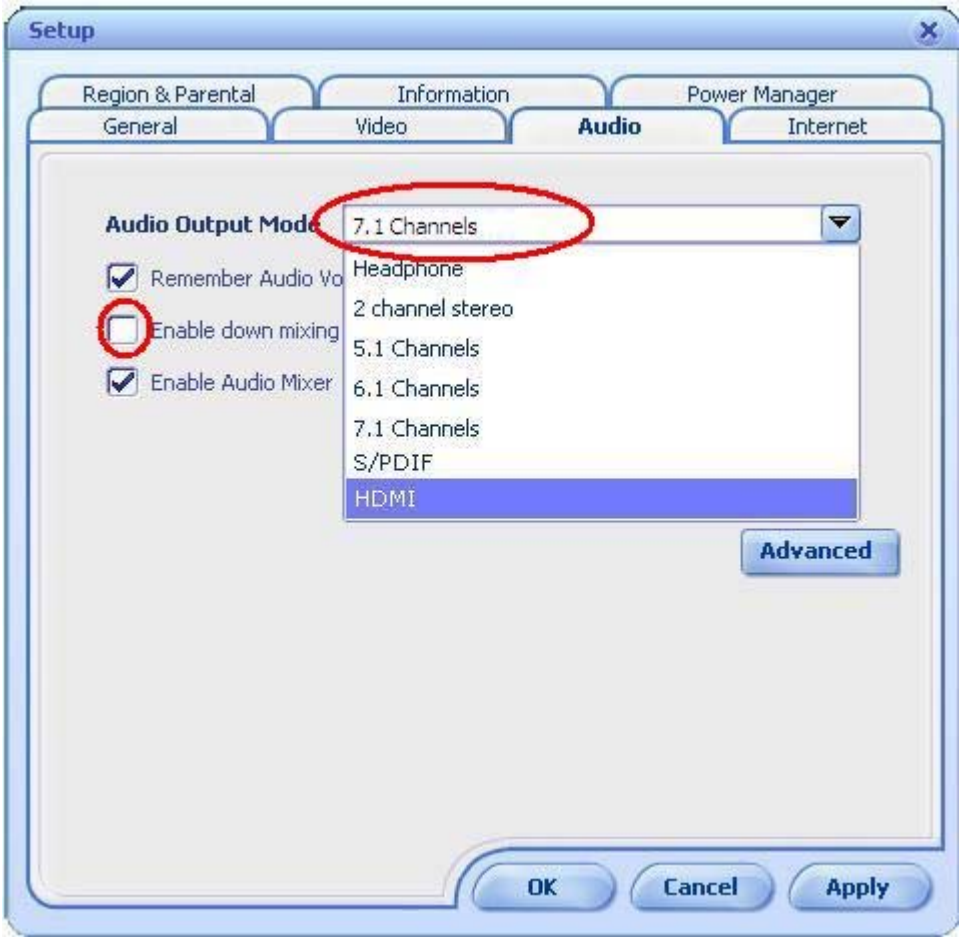
(Note: Dolby TrueHD bit-stream pass-through will be supported by an updated TMT player later.)



Scenario 2: High-Bit-Rate audio decoding lossless LPCM output (DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby Digital Plus, & Dolby TrueHD decoding) by HDMI or Analog Out connection (for Blu-ray Disc)

1. Select HDMI mode for HDMI output or Sound Card mode for analog output in Xonar HDAV Center audio page
2. Select "**7.1 Speakers**" in Analog Out

3. Open TotalMedia Theatre➔Setup➔Audio
4. Select "**7.1 Channels**" or other correspondent channel numbers with your speaker type in Audio Output Mode (TMT will output LPCM audio data after decoding)
5. Uncheck "Enable down mixing (192KHz)" item (Enable audio mixer should be checked only when you are going to do PIP function to mix primary and secondary audio streams)
6. Press "Apply" first, then press OK. Then start playback.

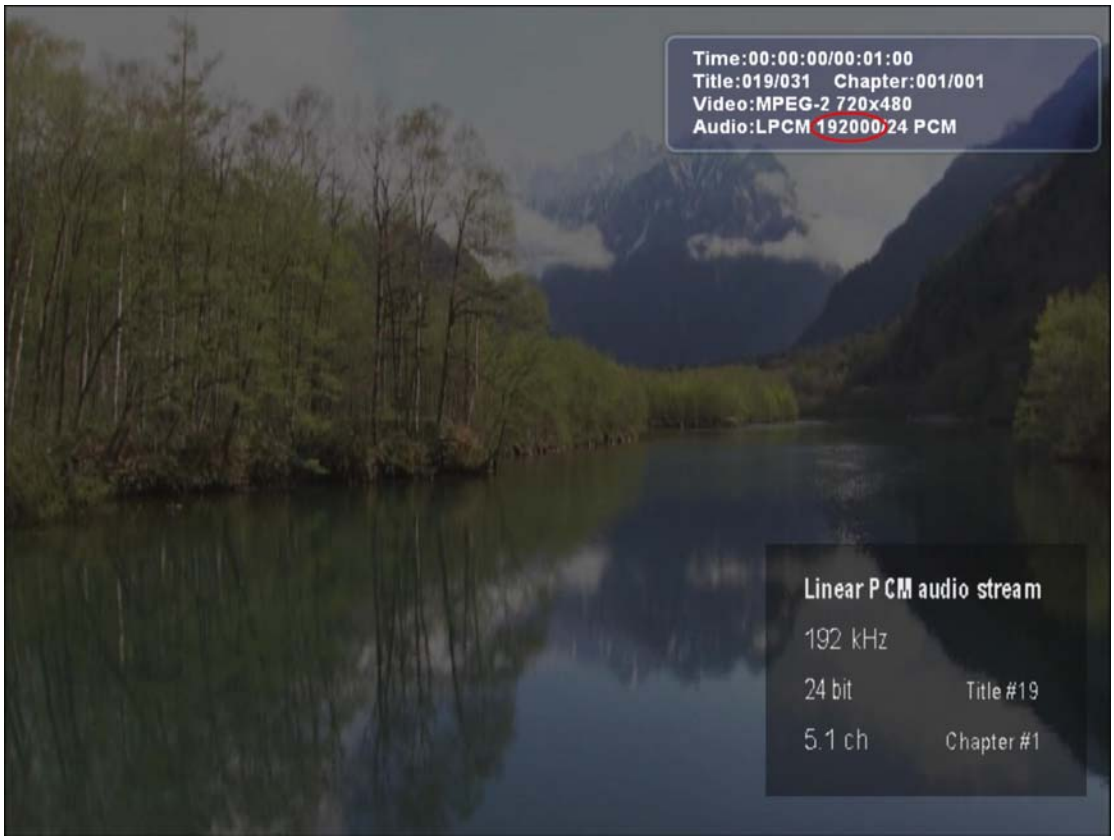


6.Select correspondent Sample Rate in Xonar AV Center consistent with the playing disc audio format displayed in TMT screen (right-click mouse to turn on "information" function) for the highest fidelity playback.

(Note: In sound card mode, S/PDIF will be automatically muted and will not output LPCM data while playing HBR audio for compliance with AACS audio protection rules.)

For example:

The disc audio format is 192KHz/24bit LPCM as the picture below.



Set the Sample Rate in Xonar as the content's format.

Scenario 3: Dolby Digital/DTS 5.1 bitstream pass-through by SPDIF/HDMI (for DVD/Blu-ray disc)

1. Open Xonar HDAV Center
2. Enable "SPDIF Out" in Sound Card mode for S/PDIF out or select HDMI mode for

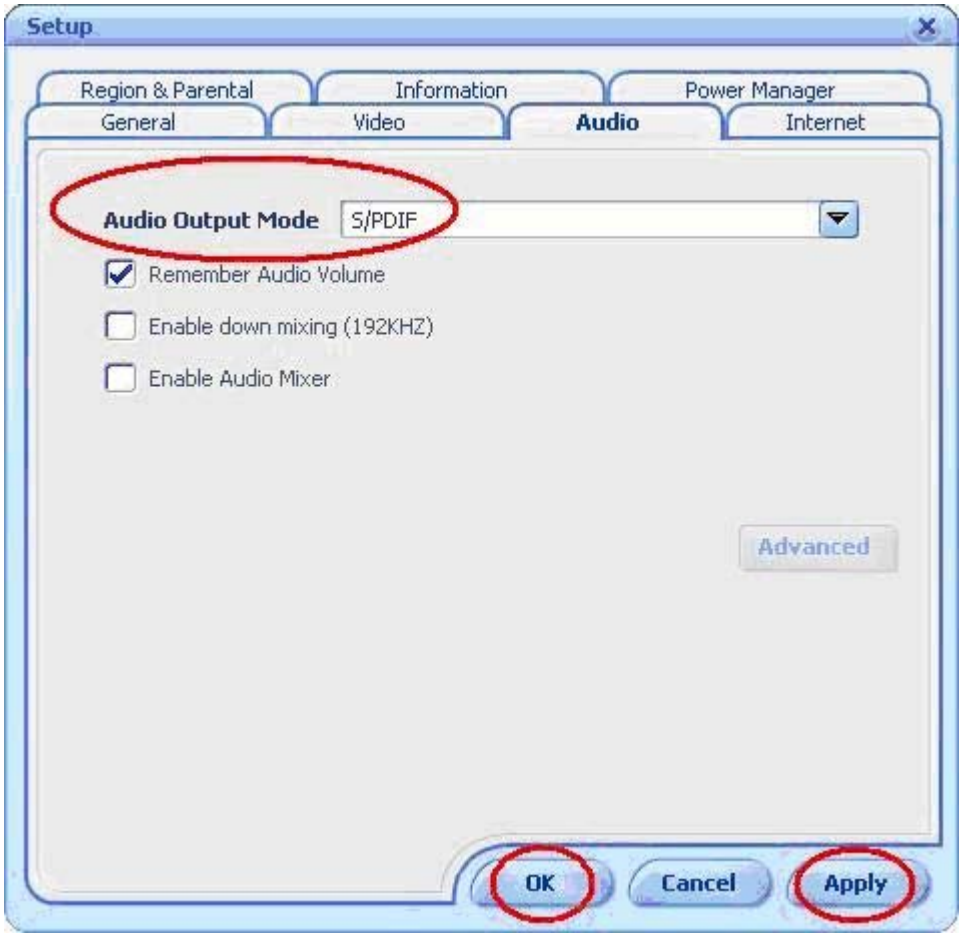
HDMI output

3. Open TotalMedia Theatre➔Setup➔Audio

4 .Select "**S/PDIF**" in Audio Output Mode (TMT will output AC3/DTS bitstream)

5. Uncheck "Enable down mixing (192KHz)" item

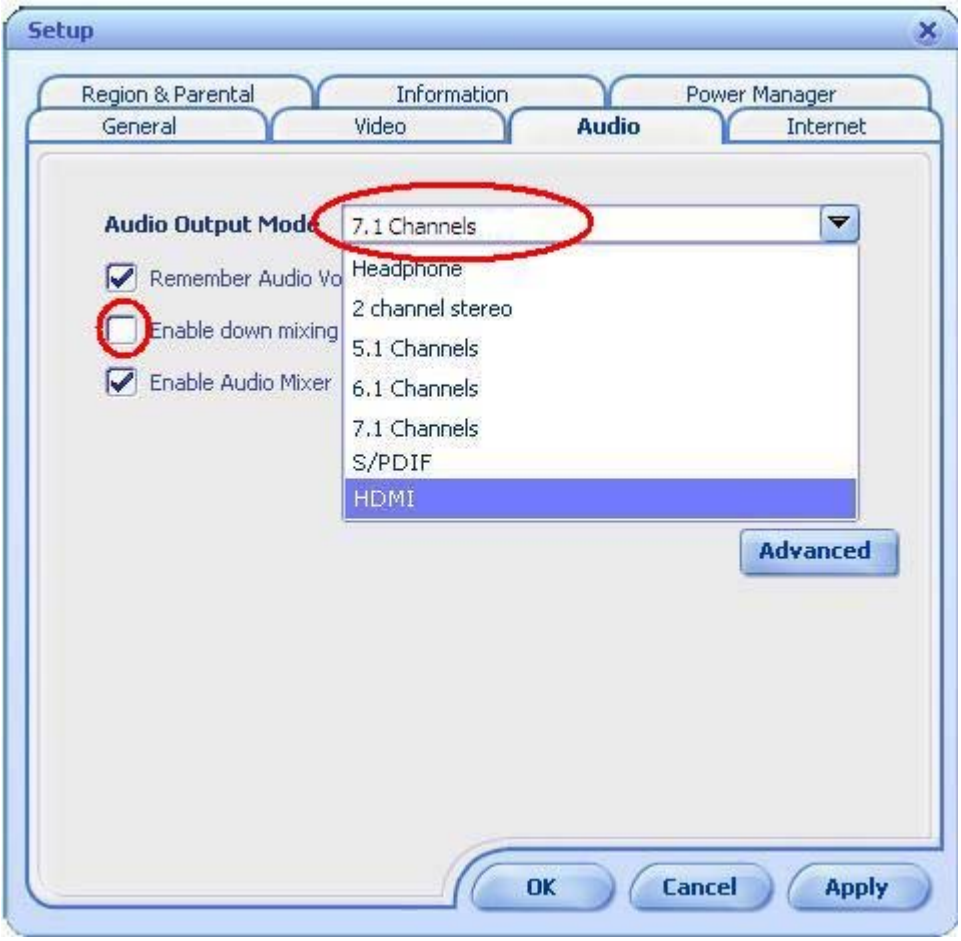
6. Press Apply first, then press OK. Please start playback.



Scenario 4: Add sound effects and use DDL/DTS Connect transcoding output by SPDIF/HDMI (for DVD/Blu-ray disc)

1. Open Xonar HDAV Center
2. Enable “S/PDIF Out” in Sound Card mode or select HDMI mode
3. Select “**Dolby Digital Live**” or “**DTS Interactive**” in S/PDIF Out or HDMI Out pull-down menu

4. Open TotalMedia Theatre➔Setup➔Audio
5. Select “**7.1 Channels**” in Audio Output Mode (TMT will output LPCM audio data after decoding and Xonar will add DSP effects and tanscode it into AC3/DTS.)
6. Uncheck “Enable down mixing (192KHz)” item
7. Press Apply first, then press OK. Now you can start playback.

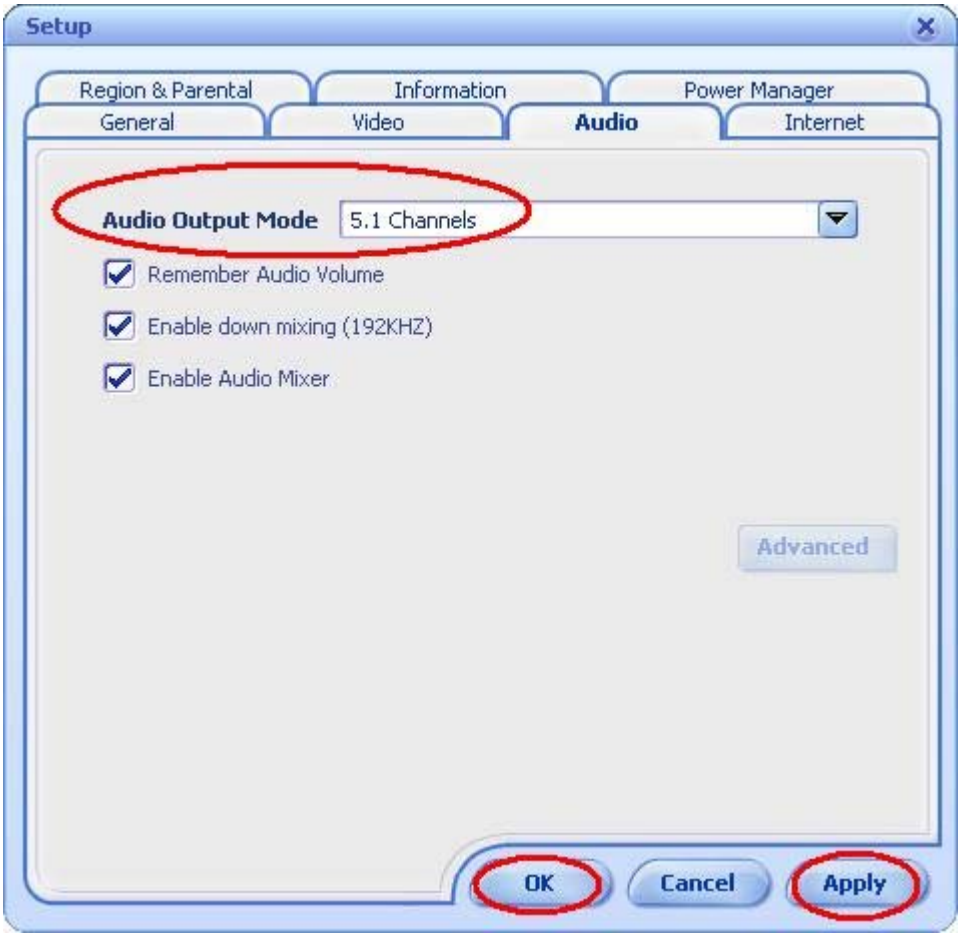


8. In this mode, you are able to adjust the DVD sound volume, your multi-speaker placement and surround soundfield virtually by 7.1 Virtual Speaker Shifter. You can also add environmental reverbs or EQ effect into the movie surround sounds. In a word, you can optimize the movies' sounds even over Dolby Digital/DTS Surround 5.1 digital bitstream output to your home theater.

Scenario 5: Use Dolby Headphone virtualized 5.1 surround sounds over stereo headphone (for DVD/Blu-ray disc)

1. Open Xonar HDAV Center and select Sound Card mode page
2. Select "**Headphone**" in Analog Out
3. Check "**Dolby Headphone**" ON

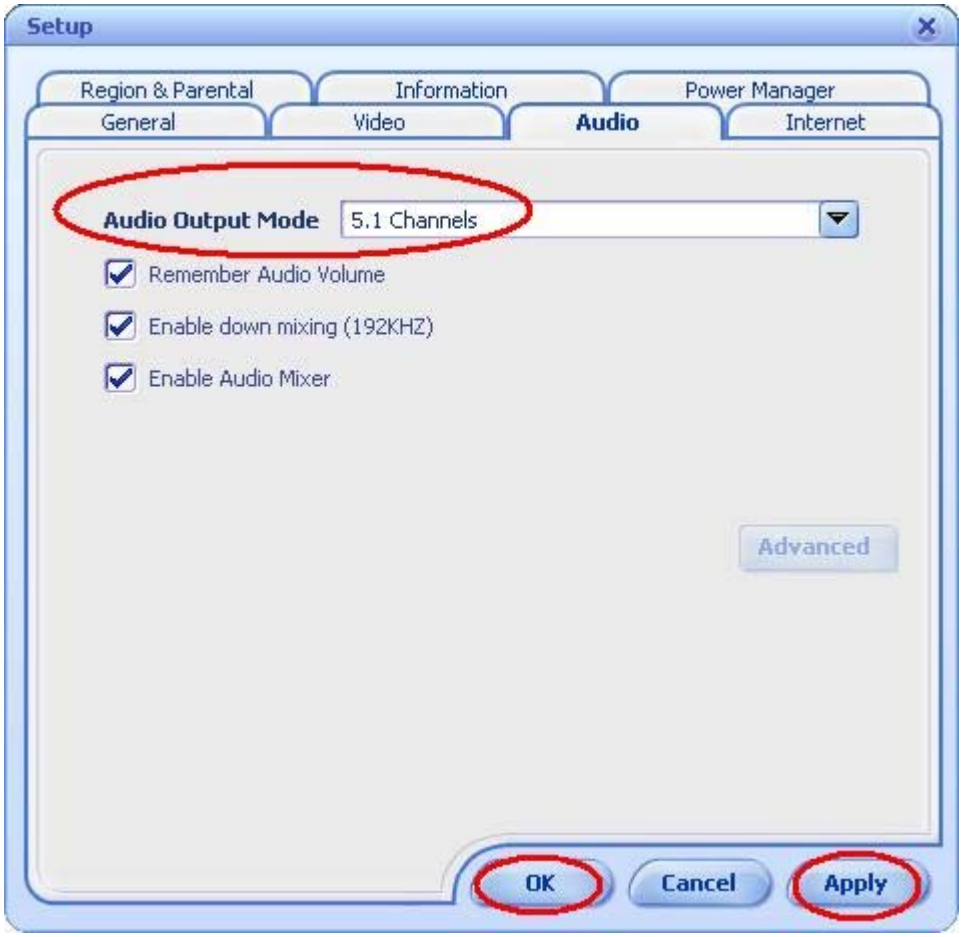
4. Open TotalMedia Theatre➔Setup➔Audio
5. Select "**5.1 Channels**" in Audio Output Mode
6. Press Apply first, and then press OK. Please start playback.



Scenario 6: Use Dolby Virtual Speaker virtualized 5.1 surround sounds over stereo or 2.1 speakers (for DVD/Blu-ray disc)

1. Open Xonar HDAV Center and select Sound Card mode
2. Select "**2 Speakers**" in Analog Out
3. Check "**Dolby Virtual Speaker**" ON

4. Open TotalMedia Theatre➔Setup➔Audio
5. Select "**5.1 Channels**" in Audio Output Mode
6. Press Apply first, then press OK. Please start playback.

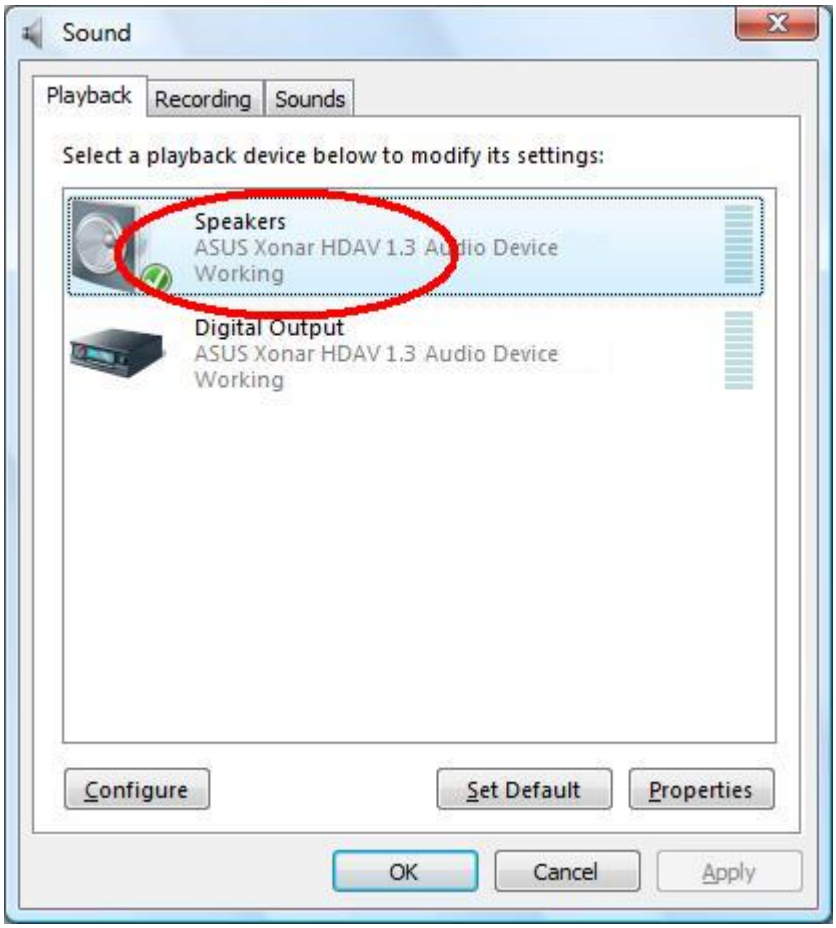


Windows Vista 32/64

(HBR audio bit-stream pass-through will be supported by upgraded TMT player version in the near future)

Scenario 1: High-Bit-Rate audio decoding LPCM output (DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby Digital Plus, & Dolby TrueHD decoding) by HDMI or Analog Out connection (for Blu-ray Disc)

1. Set "**Speakers**" as the default playback audio device in Sound setting in Vista



2. Select HDMI mode for HDMI output or Sound Card mode for analog output in Xonar HDAV Center audio page

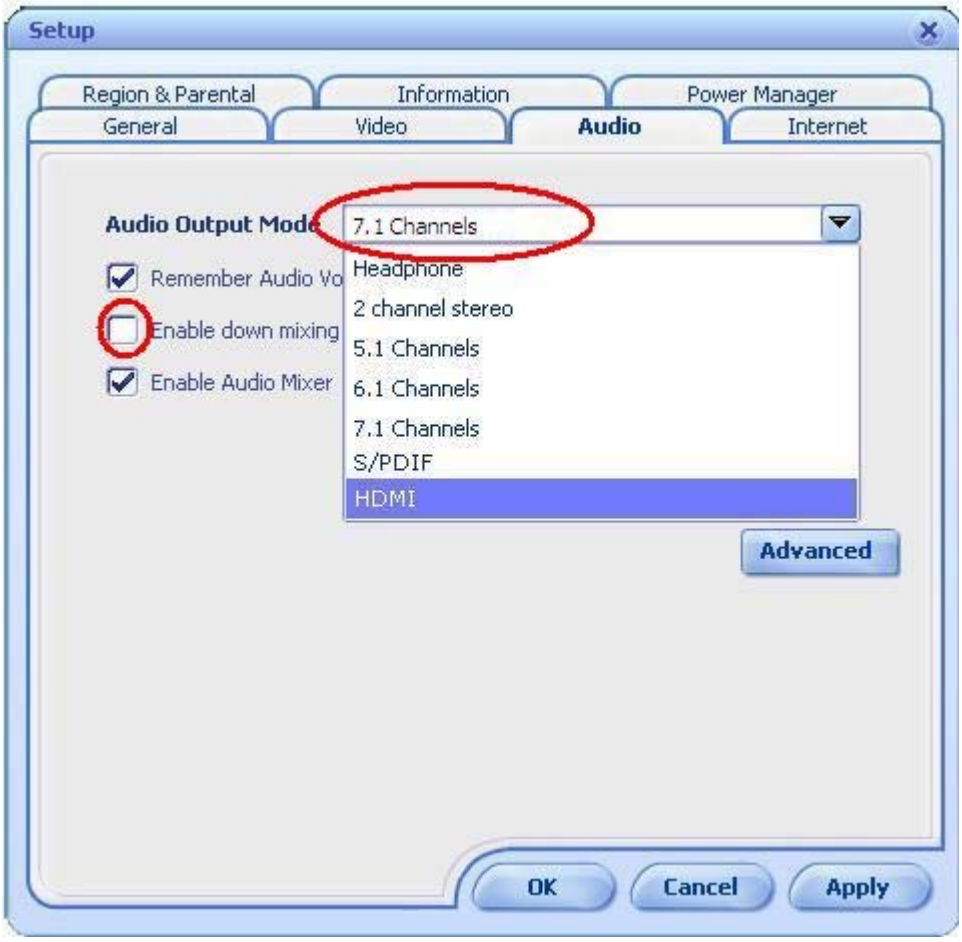
3.Select "**8 Channels**" in Audio Channel menu

4.Open TotalMedia Theatre➔click Setup➔Audio

5.Select “**7.1 Channels**” or other correspondent channel numbers with your speaker type in Audio Output Mode (TMT will output LPCM audio data after decoding)

6.Uncheck “Enable down mixing (192KHz)” item (Enable audio mixer should be checked only when you are going to do PIP function to mix primary and secondary audio streams)

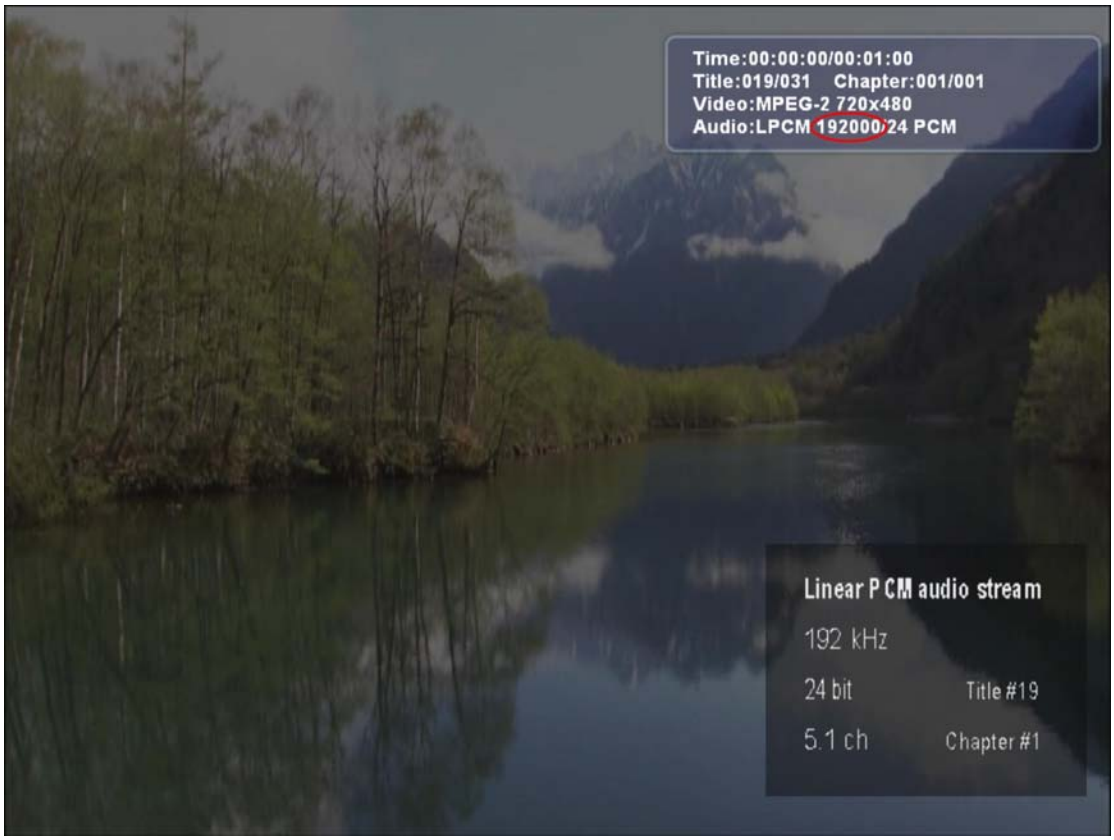
7.Press “Apply” first, then press OK. Then start playback.



8.Select correspondent Sample Rate in Xonar AV Center consistent with the playing disc audio format displayed in TMT screen (right-click mouse to turn on “information” function) for the highest fidelity playback

For example:

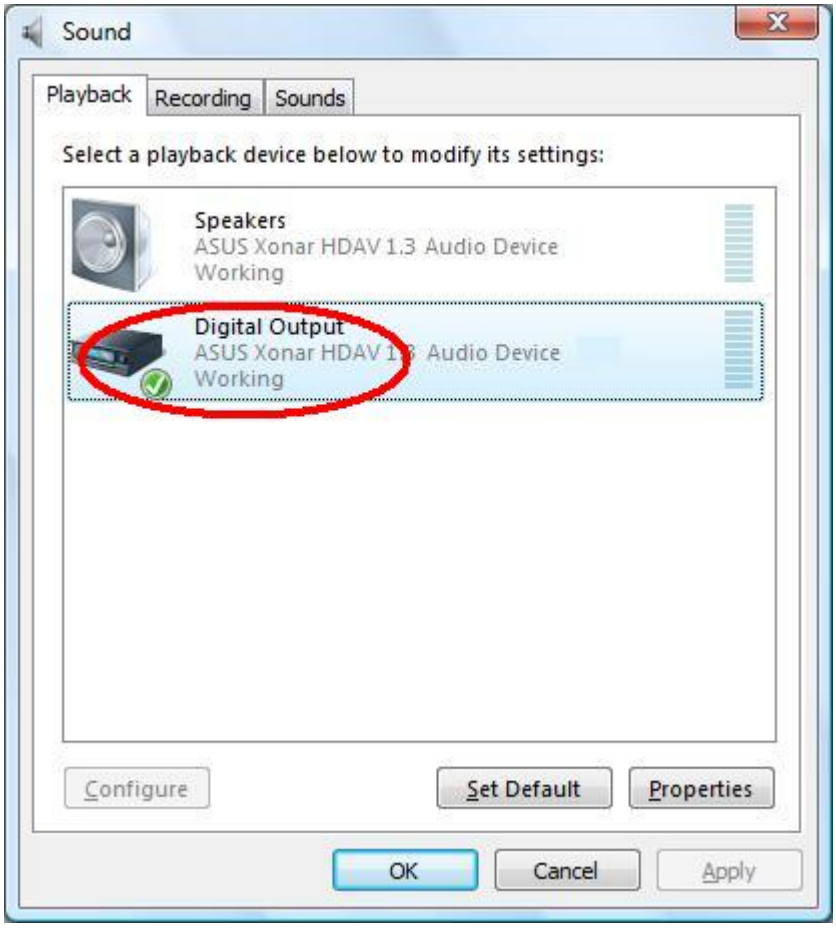
The disc audio format is 192KHz/24bit LPCM as the picture below.



Set the same 192KHz sample rate as the content above.

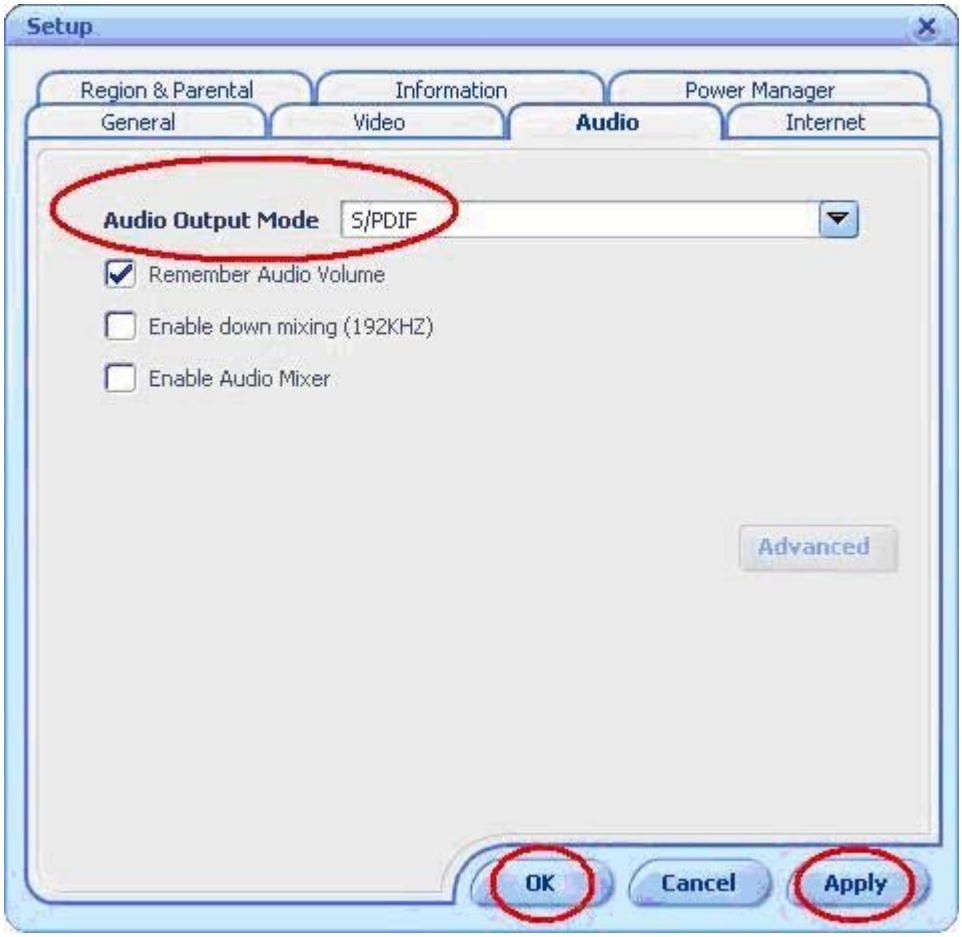
Scenario 2: Dolby Digital/DTS 5.1 bitstream pass-through by SPDIF/HDMI (for DVD/Blu-ray disc)

1. Set “**Digital Output Device**” as the default playback device in Sound setting in Vista first



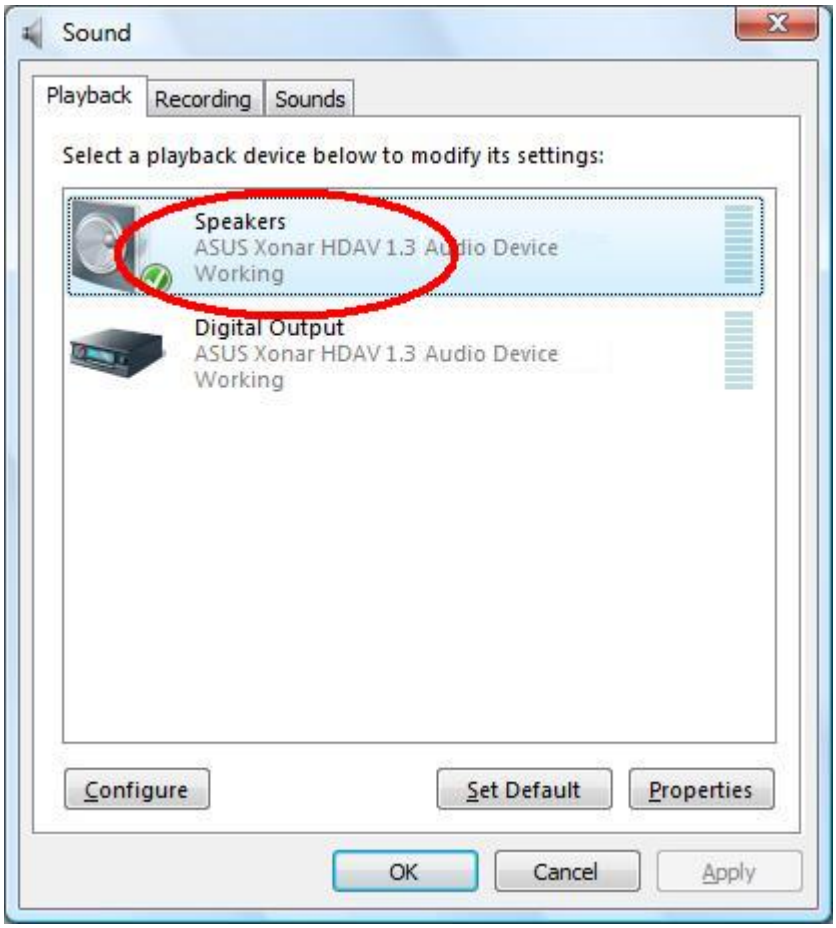
2. Open Xonar HDAV Center
3. Enable “SPDIF Out” in Sound Card mode for S/PDIF or select HDMI mode for HDMI output

4. Open TotalMedia Theatre➔Setup➔Audio
5. Select "**S/PDIF**" in Audio Output Mode
6. Press Apply first, then press OK. You can start playback now.



Scenario 3: Add sound effects and use DDL/DTS Connect transcoding output by SPDIF/HDMI (for DVD/Blu-ray disc)

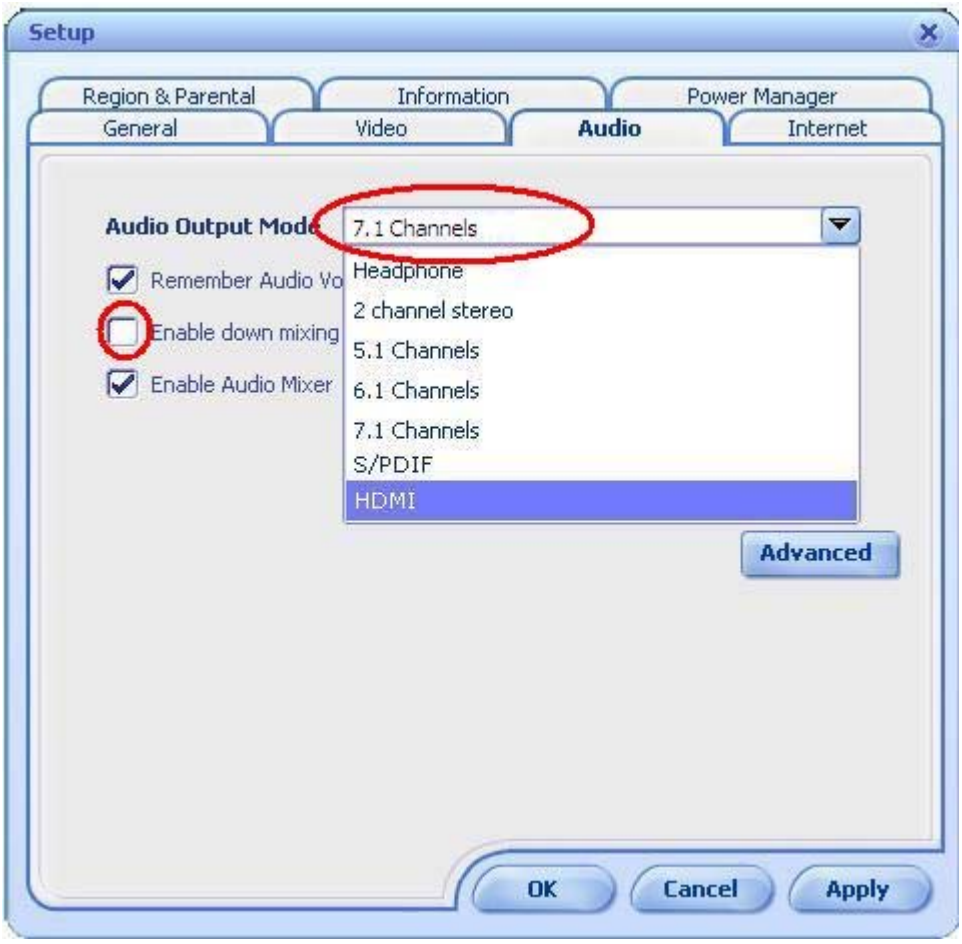
1. Set "**Speakers**" as the default playback audio device in Sound setting in Vista



2. Open Xonar HDAV Center
3. Enable “S/PDIF Out” in Sound Card mode or select HDMI mode for HDMI output
4. Set “**6 Channels**” or “**8 Channels**” in Audio Channel and select “**Dolby Digital Live**” or “**DTS Interactive**” in S/PDIF Out or HDMI Out pull-down menu

5. Open TotalMedia Theatre➔Setup➔Audio

6. Select “**7.1 Channels**” in Audio Output Mode (TMT will output LPCM audio data after decoding and Xonar will add DSP effects and tanscode it into AC3/DTS.)
7. Uncheck “Enable down mixing (192KHz)” item
8. Press Apply first, then press OK. Now you can start playback.



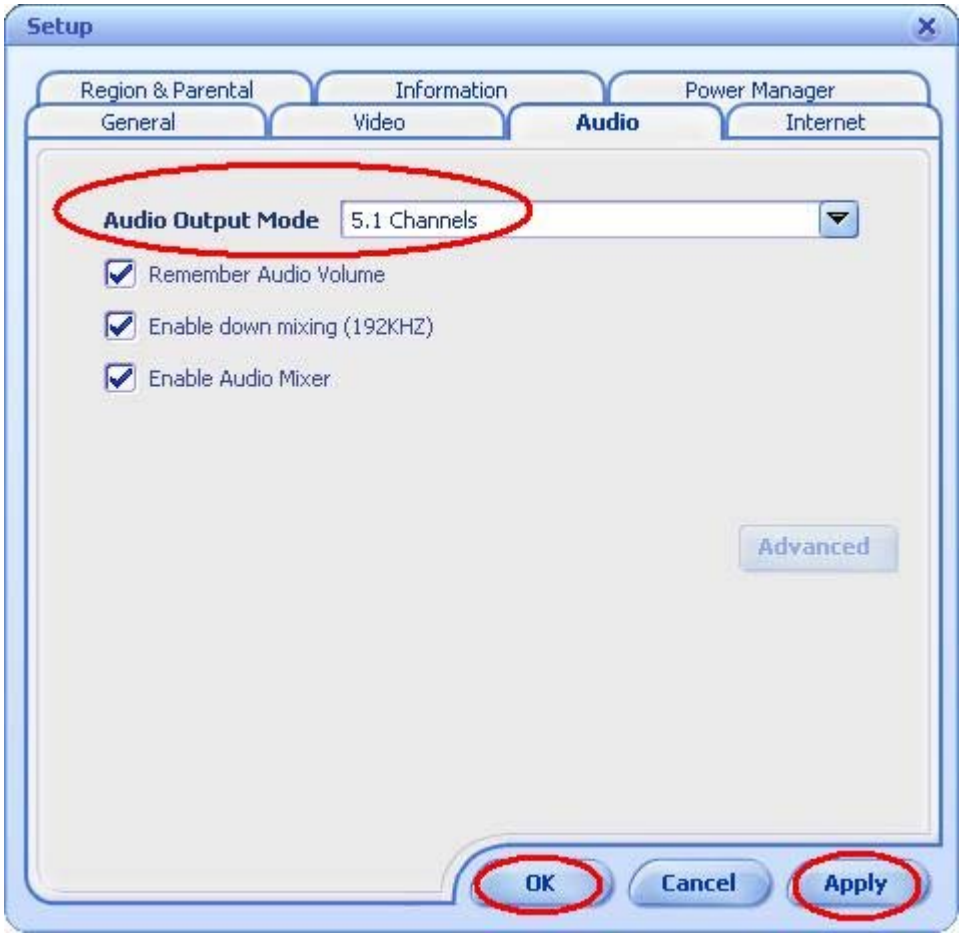
9. In this mode, you are able to adjust the DVD sound volume, your multi-speaker placement and surround soundfield virtually by 7.1 Virtual Speaker Shifter. You can also add environmental reverbs or EQ effect into the movie surround sounds. In a word, you can optimize the movies’ sounds even over Dolby Digital/DTS Surround 5.1 digital bitstream output to your home theater.

Scenario 4: Use Dolby Headphone virtualized 5.1 surround sounds over stereo headphone (for DVD/Blu-ray disc)

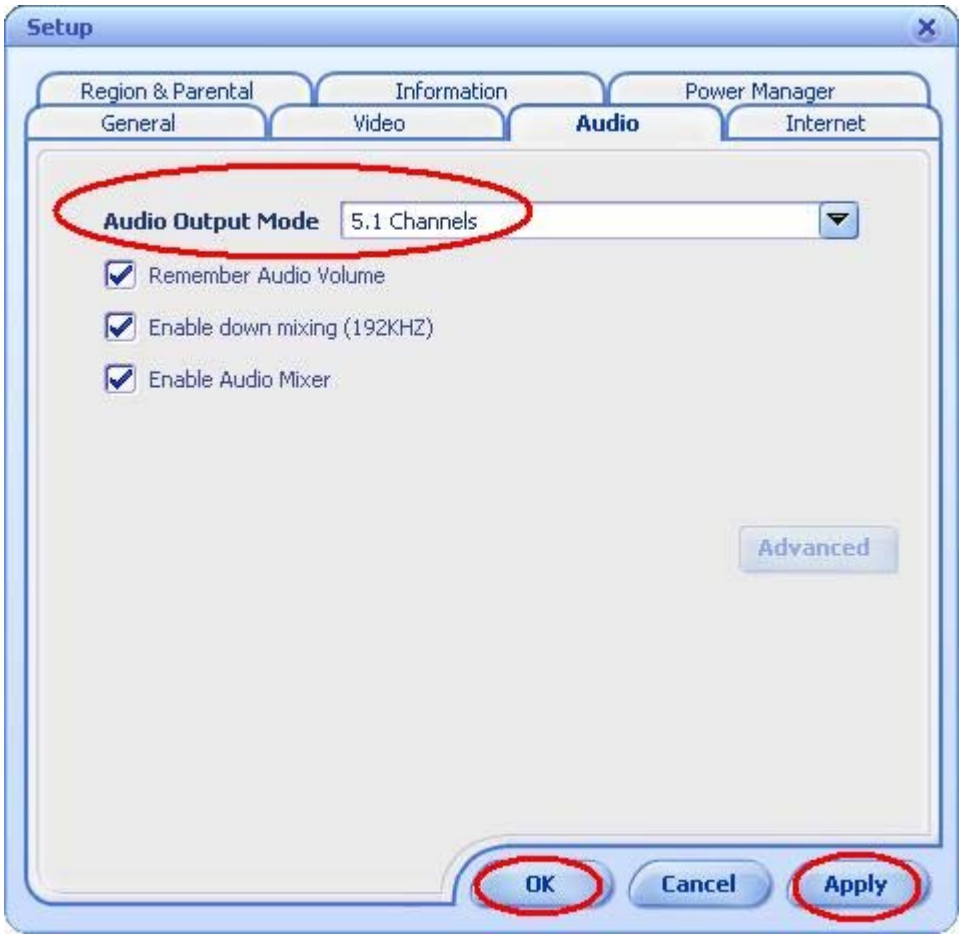
1. Set “**Speakers**” as the default playback audio device in Sound setting in Vista

2. Open Xonar HDAV Center and select Sound Card mode page
3. Select "**6 Channels**" or "**8 Channels**" in Audio Channel and "**Headphone**" in Analog Out
4. Check "**Dolby Headphone**" ON

5. Open TotalMedia Theatre➔Setup➔Audio
6. Select "**5.1 Channels**" in Audio Output Mode
7. Press Apply first, and then press OK. Please start playback.



Scenario 5: Use Dolby Virtual Speaker virtualized 5.1 surround sounds over stereo or 2.1 speakers (for DVD/Blu-ray disc)

1. Set "**Speakers**" as the default playback audio device in Sound setting in Vista
2. Open Xonar HDAV Center and select Sound Card mode
3. Select "**6 Channels**" or "**8 Channels**" in Audio Channel and "**2 Speakers**" in Analog Out
4. Check "**Dolby Virtual Speaker**" ON

4. Open TotalMedia Theatre➔Setup➔Audio
5. Select "**5.1 Channels**" in Audio Output Mode
6. Press Apply first, then press OK. Please start playback.